

vacuum augmentor has been much employed, as shown in fig. 25. The condenser is inclined slightly so as to facilitate the fall of the water of condensation to the lower outlet, which is formed into a sunk trap as shown. Near the other end of the main condenser an air outlet is provided, and the air is propelled by means of a small steam ejector through a special supple-

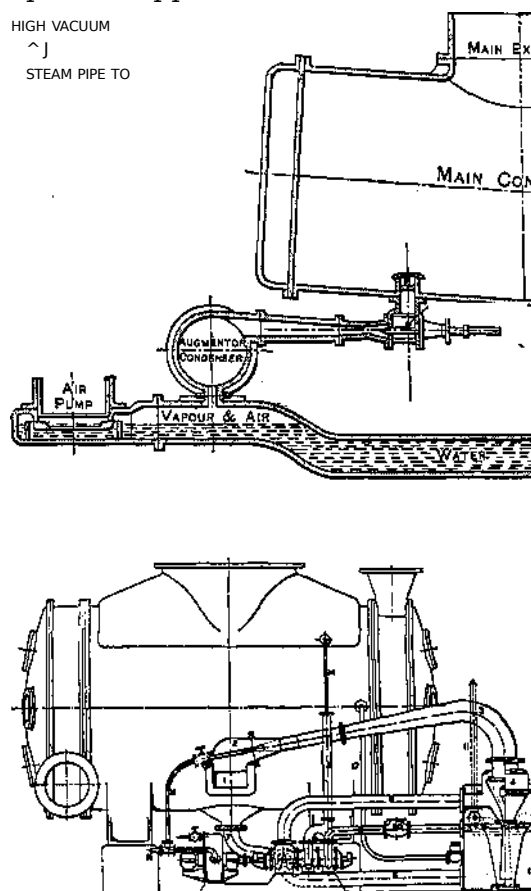


Fig. 25.—Parsons Vacuum Augmentor

mentary auxiliary condenser and delivered to the air-pump beyond the sunk water-trap. Thus the air-pump takes air already somewhat increased in density above the condenser pressure, and its efficiency and capacity is thus improved. Thus, with a condenser vacuum of 27[^] to 28 in. the vacuum at the air-pump may be only 26 in. The tube surface of the

auxiliary condenser is one-twentieth that of the main condenser, and the steam consumption is said to be 0.6 per cent of the main consumption, while the vacuum is improved from 28 in. to 30 in., with steam turbines equivalent to perhaps 4 to 5 per cent

.&*&*& Air-pumps

of the main power.

In the air-pump system adopted by the Contraflo Condenser and Kinetic Air-pump Co., Ltd., a steam ejector is used to draw the air and vapour from the condenser, and to discharge it at a higher pressure into a hydraulic ejector, from which it is finally discharged to the atmosphere. The arrangement and working of the different parts of this kinetic air-pump system may be followed by reference to the sectional illustration shown in fig. 26.